

**AMENDMENTS TO THE DRAWINGS**

Amendments to the Drawings have been made to correct inadvertent errors that were noted during review. More particularly:

- Figure 1 is amended to delete reference numbers 60, 65, 70, 75, 90, and 95, which are not referred to in the Specification;
- Figure 2 is amended to delete reference number 105, which is not referred to in the Specification;
- Figure 3 is amended to delete reference number 250, which is not referred to in the Specification; and
- Figure 4 is amended to change the spelling of “REGISTOR” in element 330 to “REGISTER”.

As an attachment to this Response, Replacement Sheets have been provided, which reflect these amendments.

**REMARKS**

This is a full and timely response to the Office Action mailed September 14, 2007, in which Applicant's claims 1-19 were rejected. By way of this Response, claims 1, 7, 10, and 12-18 are amended, claim 20 is added, and no claims cancelled. Claims 1-20 currently are pending in the application. Reconsideration of the pending claims is respectfully requested in view of the forgoing amendments and the following remarks.

**I. CLAIM REJECTION – 35 USC § 103(a)**

Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Deng et al. (U.S. Pat. No. 6,701,432) (herein “Deng”) in view of Kawase (U.S. Pat. No. 6,848,061) (herein “Kawase”). Applicant has amended claims 1, 10, and 16 (from which the remaining rejected claims depend), and respectfully traverses the rejection for the reasons that follow.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. For the reasons set forth below, Applicant respectfully submits that the Examiner has not met all of the above criteria.

Applicant contends that 1) there is no suggestion or motivation to combine the teachings of Deng and Kawase to arrive at Applicant's claimed embodiments; and 2) neither Deng, Kawase nor their combination teach or suggest all of the recited claim limitations. Accordingly, at least two basic criteria to establish a *prima facie* case of obviousness are not met.

Deng discloses a communication system 200 for screening packets transferred over a network (*see* Figure 2; Abstract). The system 200 includes a memory controller 124 and an ASIC 204 (*see* col. 4, lines 46-48; col. 5, lines 21-22; and Figures 2, 4). The ASIC 204 includes a firewall engine 400, an encryption/decryption engine 402, an

authentication engine 404, an authentication data buffer 406, a host interface 408, a local bus DMA engine 410, a local bus interface 412 and on-chip rule memory 414 (*see col. 5, lines 21-29*). Authentication engine 404 performs an inspection on a received communication packet (*col. 5, lines 46-47*). When a communication packet is received, certain rules are applied to authenticate the packet (*see col. 6, lines 4-11*). Authentication includes receiving a packet at a network interface, storing the packet in memory, performing the firewall inspection, and performing an authentication algorithm (e.g., MD5 or SHA1) (*see col. 11, lines 1-67; Figures 2, 4, and 8*).

Kawase discloses a drive mechanism control device (Figure 1). The drive mechanism control device includes a drive confirmation unit that includes a comparison data storage unit in which specific count values are stored. A counter is initialized when an operating part is at a reference position, and the counter counts up each time a time-up signal is received. A comparator compares the value of the counter with a specific count value stored in the comparison data storage unit (*see col. 4, line through col. 5, line 7*).

Traverse 1: There is no suggestion or motivation to combine the teachings of Deng and Kawase to arrive at Applicant's claims. Deng and Kawase are clearly non-analogous art. Whereas Deng is in the technical field of communication systems for screening packets transferred over a network (e.g., gateways), Kawase is in the technical field of drive mechanism control devices. Clearly, these technical fields are not related, and one of skill in the art would not be motivated to look to Kawase in order to modify the teachings of Deng. Accordingly, the basic criteria to establish a *prima facie* case of obviousness, that there must be some suggestion or motivation to combine the teachings of multiple references, is not met.

Traverse 2: Neither Deng, Kawase nor their combination teach or suggest all of the recited claim limitations. Applicants' claims 1-19 include the following features, which distinguish Applicants' claim from that which is disclosed by the combination of Deng and Kawase:

Claims 1-9:

“ . . . a controller adapted to fetch first memory content from a portion of memory, wherein the first memory content includes software executable on the electronic device;

a memory reference file coupled to said controller, and adapted to store at least one memory reference value that corresponds to the first memory content; and

an authentication engine coupled to said controller, and adapted to perform a runtime check during runtime operation of the electronic device by comparing at least one runtime reference value with the at least one memory reference value, wherein the at least one runtime reference value corresponds to second memory content fetched from the portion of memory during the runtime operation of the electronic device.”

Claims 10-15:

“ . . . storing trusted information in specific memory locations within a memory of the electronic device, wherein the trusted information includes software executable on the electronic device;

fetching said trusted information from the specific memory locations, and providing said trusted information to an authentication engine;

generating a memory reference value corresponding to said trusted information fetched from the specific memory locations;

storing said memory reference value in a memory reference file;

operating the electronic device in a runtime mode of operation;

fetching memory content from the specific memory locations, and providing the memory content corresponding to the specific memory locations to said authentication engine during the runtime mode of operation of the electronic device;

generating a runtime reference value from the memory content fetched from the specific memory locations; and

comparing said runtime reference value to said memory reference value.”

Claims 16-19:

“ . . . fetching trusted information from a portion of memory of the electronic device, wherein the trusted information includes software executable on the electronic device;

providing the trusted information to an autonomous memory checker during a boot-time mode of operation of the electronic device;

instructing said autonomous memory checker to hash said trusted information during said boot-time mode;

generating, by said autonomous memory checker, reference hash values from said trusted information;

storing said reference hash values to a memory reference file;

fetching, during a runtime mode of operation of the electronic device, memory contents from the portion of memory from which said trusted information was previously fetched;

generating, by said autonomous memory checker, runtime hash values with said memory contents retrieved during the runtime mode;

comparing said reference hash values to said runtime hash values; and

signaling an error when said reference hash values differ from said runtime hash values to indicate that said trusted information has been modified.”

Neither Deng, Kawase nor their combination teach or suggest the features of Applicant’s claims 1-19. More specifically, neither Deng, Kawase, nor their combination teach or suggest storing a memory reference value that corresponds to software fetched from a portion of memory of an electronic device, and comparing a runtime reference value with the memory reference value, where the runtime reference value corresponds to memory content fetched from the portion of memory during runtime operation of the electronic device. Accordingly, the basic criteria to establish a *prima facie* case of obviousness, that the prior art references must teach or suggest all of the recited claim limitations, is not met.

Based on the amendments and the above remarks, Applicant believes that the rejection of claims 1-19 under 35 U.S.C. § 103(a) has been overcome. Applicant

respectfully requests reconsideration and withdrawal of the rejection, and the allowance of these claims.

**II. SUPPORT FOR AMENDMENTS AND NEW CLAIM**

Amendments to the Specification are to correct minor typographical errors and to add reference numbers that were included in the Figures but were inadvertently excluded from the text of the Specification. Amendments to the Figures are to remove reference numbers that were not discussed in the text of the Specification, and to fix a typographical error (in Figure 4). Support for the amendments to the claims and the addition of new claim 20 may be found in the originally filed application at least in paragraphs [0015], [0016], [0023], and [0025], and in Figure 2. No new matter is introduced as a result of the amendments.

**III. REFERENCE MADE OF RECORD**

Applicant acknowledges the reference Traw et al. (U.S. Pat. No. 6,009,527) having been made of record, and does not believe this reference to bear upon the allowability of Applicant's claims.

**III. CONCLUSION**

In view of the on the above, Applicant respectfully submits that the application is now in condition for allowance. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If, for some reason, Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge INGRASSIA, FISHER & LORENZ, PC, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA, FISHER & LORENZ

Dated: November 30, 2007

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